

A Quick Start Guide to Survey Research

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Welcome to survey research

This book is intended to be a quick resource for conducting survey research. By no means is it intended to be comprehensive of all survey research methodologies.



Figure 1:

Preface

It can be difficult to find condensed and easy to read resources on survey research.

We developed this book in the hopes of future collaboration among other UX researchers.

Outline

The content of the book will include:

- **Chapter 1**
- **Chapter 2**

Prerequisites

All you need is an interest in conducting survey research, we'll assume basic knowledge, and hope to include code snippets (python and R) along the way

Acknowledgements

This book wouldn't be possible without the contributions of:

Chapter 1

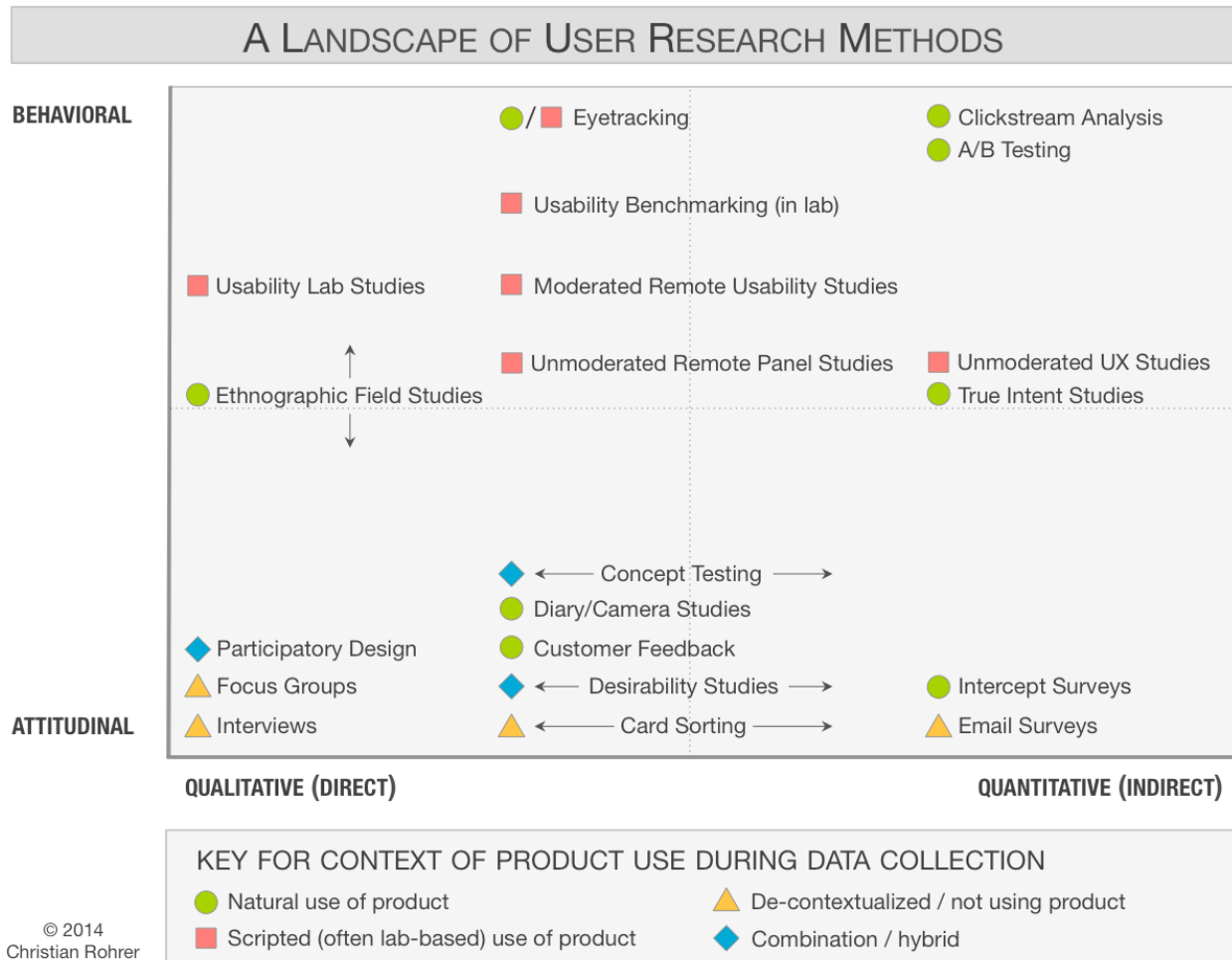
Designing a survey

1.1 What is your research goal?

First, establish if a survey is the right method to accomplish your research goal by asking yourself:

- What do you currently know?
- What *don't* you know?

Below is a useful visualization from the Nielsen Norman group on how to decide between which qualitative or quantitative methods to answer your research goal ([Rohrer, 2014](#)).



Surveys are great for answering the “How many and how much” of what people do and say; surveys are not the best method at understanding the “Why and how to fix” a product problem.

1.2 Who are you studying?

This question may be simple at first, but when you start to narrow down

QUESTIONS ANSWERED BY RESEARCH METHODS ACROSS THE LANDSCAPE

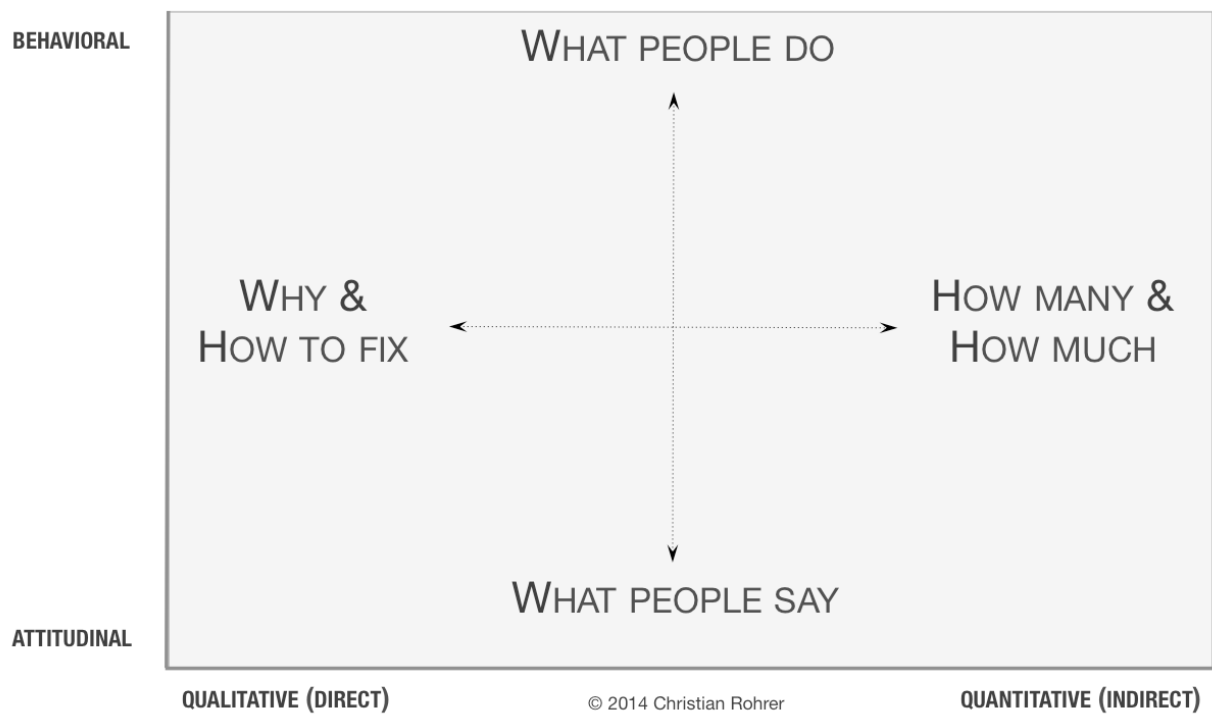


Figure 1.1:

Chapter 2

Writing effective survey questions

Effective survey questions result in **consistent** and **reliable** responses.

Chapter 3

Survey Analysis

After you've fielded your survey, here are the steps to making sense of the data.

This section assumes you have a laptop set up to work with in either R or python. Head over to the Appendix page if you need help with set up.

3.1 Organize your workspace

Before beginning any analysis, you'll want to set up a reproducible workflow in your workspace. Below is an adapted suggestion on how to organize your workspace from Ben Marwick, Carl Boettiger, and Lincoln Mullen ([Ben Marwick, 2018](#))

```
project
|- DESCRIPTION          # project metadata and dependencies
|- README.md            # top-level description of content and guide to users
|
|- data/                # data files used
|   +- raw_data.csv      # data files in open formats such as TXT, CSV, TSV, etc.
|   +- cleaned_data.csv  # data files that have been cleaned, merged, etc that you'll use for survey ana
|
|- analysis/            # any programmatic code
|   +- my_report.Rmd     # R markdown file with narrative text interwoven with code chunks
|   +- makefile          # builds a PDF/HTML/DOCX file from the Rmd, code, and data files
|   +- scripts/          # code files (R, shell, etc.) used for data cleaning, analysis and visualisation
|
|- R/
|   +- my_functions.R    # custom R functions that are used more than once throughout the project
|
|- man/
|   +- my_functions.Rd   # documentation for the R functions (auto-generated when using devtools)
|
```

3.2 Data Cleaning

Before you can begin looking at the results, you'll need to clean the data.

3.2.1 Load the data

Download your raw survey data as a csv and load it into your analysis tool of choice (e.g. Ipython notebook or Rstudio)

R version

```
#load necessary packages for analysis  
library(tidyverse)  
  
#read/store the data as the variable df (short for dataframe)  
df <- read_csv(file)
```

python version

```
#load necessary modules for analysis  
import pandas as pd  
  
#read/store the data as the variable df (short for dataframe)  
df = pd.read_csv(filename)
```

3.2.2 Preview the data

It's important to get a look at the data to spot an errors in uploading, etc.

Appendix A

Setting up R

A.1 Package installation

You'll want to install the following packages:

```
library(tidyverse)
```


Appendix B

Setting up python

```
# Pandas makes working with data tables easier
import pandas as pd

# Numpy is a library for working with Arrays
import numpy as np

# Module for plotting graphs
import matplotlib.pyplot as plt
import seaborn as sns

# SciPy implements many different numerical algorithms
import scipy.stats as stats
import collections
```

```
library(tidyverse)
```


Bibliography

- Ben Marwick, Carl Boettiger, L. M. (2018). Packaging data analytical work reproducibly using r (and friends). *PeerJ*.
- Rohrer, C. (2014). When to use which user-experience research methods. *Nielsen Norman Group*.